Replacing the Component Tray in a BayStack ARN Router

Part No. 114649-A Rev. A November 1996





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ii 114649-A Rev. A

Electromagnetic Emissions

Meets requirements of:

FCC Part 15, Class A EN 55 022 (CISPR 22:1985), Class A <and Class B> VCCI Class 1 ITE

Canada Requirements Only

Canada CS-03 Rules and Regulations

Note: The Canadian Department of Communications label identifies certified equipment. The certification means that the equipment meets certain telecommunications network protective operations and safety requirements. The Department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. In some cases, the company's inside wiring associated with a single line individual service may be extended by means of a certified connector assembly (telephone extension cord). The customer should be aware that compliance with the above conditions may not prevent the degradation of service in some situations.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alterations made by the user to this equipment or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

Caution: Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

Canada CS-03 -- Règles et règlements

Note: L'étiquette du ministère des Communications du Canada indique que l'appareillage est certifié, c'est-à-dire qu'il respecte certaines exigences de sécurité et de fonctionnement visant les réseaux de télécommunications. Le ministère ne garantit pas que l'appareillage fonctionnera à la satisfaction de l'utilisateur.

Avant d'installer l'appareillage, s'assurer qu'il peut être branché aux installations du service de télécommunications local. L'appareillage doit aussi être raccordé selon des méthodes acceptées. Dans certains cas, le câblage interne du service de télécommunications utilisé pour une ligne individuelle peut être allongé au moyen d'un connecteur certifié (prolongateur téléphonique). Le client doit toutefois prendre note qu'une telle installation n'assure pas un service parfait en tout temps.

Les réparations de l'appareillage certifié devraient être confiées à un service d'entretien canadien désigné par le fournisseur. En cas de réparation ou de modification effectuées par l'utilisateur ou de mauvais fonctionnement de l'appareillage, le service de télécommunications peut demander le débranchment de l'appareillage.

Pour leur propre sécurité, les utilisateurs devraient s'assurer que les mises à la terre des lignes de distribution d'électricité, des lignes téléphoniques et de la tuyauterie métallique interne sont raccordées ensemble. Cette mesure de sécurité est particulièrement importante en milieu rural.

Attention: Les utilisateurs ne doivent pas procéder à ces raccordements eux-mêmes mais doivent plutôt faire appel aux pouvoirs de réglementation en cause ou à un électricien, selon le cas.

114649-A Rev. A iii

Canada Requirements Only (continued)

D. O. C. Explanatory Notes: Equipment Attachment Limitations

The Canadian Department of Communications label identifies certified equipment. This certification meets certain telecommunication network protective, operational and safety requirements. The department does not guarantee the equipment will operate to the users satisfaction.

Before installing the equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. In some cases, the company's inside wiring associated with a single line individual service may be extended by means of a certified connector assembly (telephone extension cord). The customer should be aware that compliance with the above condition may not prevent degradation of service in some situations.

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Notes explicatives du ministère des Communications: limites visant les accessoires

L'étiquette du ministère des Communications du Canada indique que l'appareillage est certifié, c'est-à-dire qu'il respecte certaines exigences de sécurité et de fonctionnement visant les réseaux de télécommunications. Le ministère ne garantit pas que l'appareillage fonctionnera à la satisfaction de l'utilisateur.

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iv 114649-A Rev. A

Canada Requirements Only (continued)

Canadian Department of Communications Radio Interference Regulations

This digital apparatus (Access Feeder Node, Access Link Node, Access Node, Access Stack Node, Backbone Concentrator Node, Backbone Concentrator Node Switch, Backbone Link Node, Backbone Link Node Switch, Concentrator Node, Feeder Node, Link Node) does not exceed the Class A limits for radio-noise emissions from digital apparatus as set out in the Radio Interference Regulations of the Canadian Department of Communications.

Réglement sur le brouillage radioélectrique du ministère des Communications

Cet appareil numérique (Access Feeder Node, Access Link Node, Access Node, Access Stack Node, Backbone Concentrator Node, Backbone Concentrator Node Switch, Backbone Link Node, Backbone Link Node Switch, Concentrator Node, Feeder Node, Link Node) respecte les limites de bruits radioélectriques visant les appareils numériques de classe A prescrites dans le Réglement sur le brouillage radioélectrique du ministère des Communications du Canada.

114649-A Rev. A v

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vi 114649-A Rev. A

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114649-A Rev. A vii

Contents

| About This Guide | |
|---|-------|
| Before You Begin | xv |
| Conventions | xv |
| Acronyms | xv |
| Ordering Bay Networks Publications | xvi |
| Technical Support and Online Services | |
| Bay Networks Customer Service | xviii |
| Bay Networks Information Services | xix |
| World Wide Web | xix |
| Customer Service FTP | xix |
| Support Source CD | xx |
| CompuServe | xx |
| InfoFACTS | xx |
| How to Get Help | xxi |
| Chapter 1 | |
| Getting Started | |
| Removing the Flash Memory Card | 1-2 |
| Opening the ARN | 1-2 |
| Chapter 2 | |
| Removing ARN Components | |
| Removing an Installed Memory Module | 2-1 |
| Removing an Installed Expansion Module | 2-4 |
| Removing an Installed Adapter Module | 2-6 |
| Removing an Ethernet DCM from the ARN Base Module | 2-7 |
| Removing an Installed V.34 Console Modem Module | 2-8 |

114649-A Rev. A ix

Chapter 3

| • | | | |
|--------|--------|-------|---------|
| Replac | ina AR | N Com | ponents |

| replacing rate compensate | |
|---|------|
| Installing a Memory Module | 3-1 |
| Installing an Expansion Module | 3-3 |
| Installing the DCM | 3-7 |
| Installing a V.34 Console Modem Module | 3-11 |
| Chapter 4 Installing the Component Tray | |
| Closing the ARN | 4-1 |
| Installing WAN Adapter Modules | 4-3 |
| Installing the Flash Memory Card | 4-5 |
| Connecting Cables | 4-5 |
| Your Next Step | 4-10 |
| Ensuring a Successful Installation | 4-10 |

Figures

| Figure 1-1. | Removing an ARN Flash Memory Card | 1-2 |
|--------------|---|------|
| Figure 1-2. | ARN Power Switch (Off) and Power Cables | 1-3 |
| Figure 1-3. | Loosening the Captive Screws | 1-3 |
| Figure 1-4. | Removing the ARN Enclosure | 1-4 |
| Figure 2-1. | Location of the SIMM Connector on the Base Module | 2-2 |
| Figure 2-2. | Ejecting the Installed SIMM | 2-3 |
| Figure 2-3. | Removing the SIMM | 2-3 |
| Figure 2-4. | Removing the Expansion Module Power Cable and Screws | 2-4 |
| Figure 2-5. | Removing the Expansion Module | 2-5 |
| Figure 2-6. | Removing the Adapter Module Screw | 2-6 |
| Figure 2-7. | Removing the DCM from an Ethernet Base Module | 2-7 |
| Figure 2-8. | Removing the Screws from the V.34 Console Modem Module | 2-8 |
| Figure 2-9. | Removing the Two Screw Mounts | 2-9 |
| Figure 3-1. | Positioning the SIMM | 3-2 |
| Figure 3-2. | Inserting the SIMM | 3-2 |
| Figure 3-3. | SIMM in the Locked Position | 3-3 |
| Figure 3-4. | Location of the Expansion Module Connector on the Base Module | 3-4 |
| Figure 3-5. | Inserting the Expansion Module | 3-5 |
| Figure 3-6. | Aligning the Expansion Module Interface Connectors | 3-6 |
| Figure 3-7. | Attaching the Power Cable and Securing the Expansion Module | 3-7 |
| Figure 3-8. | Location of the DCM Connector and Holes for Standoff Mounts | |
| | on the Ethernet Base Module | 3-8 |
| Figure 3-9. | DCM Standoff Mount | 3-8 |
| Figure 3-10. | Ethernet DCM | 3-9 |
| Figure 3-11. | Installing the DCM on the Base Module | 3-10 |
| Figure 3-12. | Removing the V.34 Console Modem Module Filler Panel | 3-11 |
| Figure 3-13. | Installing Standoff Screw Mounts for the V.34 Console Modem | |
| | Module | 3-12 |
| Figure 3-14. | Positioning the Module | 3-13 |

114649-A Rev. A xi

| Figure 3-15. | Securing the Module | 3-13 |
|--------------|---|------|
| Figure 4-1. | Attaching the ARN Cover | 4-2 |
| Figure 4-2. | Adapter Module Ready to Be Installed | 4-3 |
| Figure 4-3. | Aligning the Adapter Module to the Base Module (View Inside | |
| | the ARN Chassis) | 4-4 |
| Figure 4-4. | Securing the Adapter Module to the Front Panel | 4-4 |
| Figure 4-5. | Inserting the Flash Memory Card in the ARN Receptacle | 4-5 |
| Figure 4-6. | Ethernet Cable Connection | 4-6 |
| Figure 4-7. | Token Ring Cable Connection | 4-6 |
| Figure 4-8. | Serial Expansion Module Cable Connection | 4-6 |
| Figure 4-9. | Serial Adapter Module Cable Connection | 4-7 |
| Figure 4-10. | ISDN (U or S/T Interface) Module Cable Connection | 4-7 |
| Figure 4-11. | CSU/DSU Module Cable Connection | 4-8 |
| Figure 4-12. | V.34 Modem Adapter Module Cable Connection | 4-8 |
| Figure 4-13. | Terminal Console Cable Connection | 4-9 |
| Figure 4-14. | Modem Console Cable Connection | 4-9 |
| Figure 4-15. | V.34 Console Modem Cable Connection | 4-9 |
| Figure 4-16. | Power Cables | 4-10 |
| Figure 4-17. | ARN Base Module Diagnostic LEDs | 4-11 |
| | | |

xii 114649-A Rev. A

Tables

| T-1.1. 4 4 | Description of ED- | 4 4 | _ |
|------------|--------------------|-----|---|
| Table 4-1. | Boot Status LEDS | 4-1 | 2 |

114649-A Rev. A xiii

About This Guide

If you are responsible for installing Bay NetworksTM hardware, read this guide to learn how to replace the component tray assembly in a BayStackTM Advanced Remote NodeTM (ARNTM) router.

Before You Begin

Make sure that you are running the latest version of Bay Networks Site Manager and router software. The ARN requires Router Software Version 11.00 Rev. 4n or later, and Site Manager Software Version 5.00 Rev. 4n or later.

Conventions

italic text Indicates variable values in command syntax

descriptions, new terms, file and directory names, and

book titles.

quotation marks ("") Indicate the title of a chapter or section within a book.

Acronyms

AUI Attachment Unit Interface
STP shielded twisted-pair
UTP unshielded twisted-pair

114649-A Rev. A xv

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xvi 114649-A Rev. A

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- Billerica, Massachusetts
- Santa Clara, California
- Sydney, Australia
- Tokyo, Japan
- Valbonne, France

The Technical Response Centers are connected via a redundant Frame Relay Network to a Common Problem Resolution system, enabling them to transmit and share information, and to provide live, around-the-clock support 365 days a year.

Bay Networks Information Services complement the Bay Networks Service program portfolio by giving customers and partners access to the most current technical and support information through a choice of access/retrieval means. These include the World Wide Web, CompuServe, Support Source CD, Customer Support FTP, and InfoFACTS document fax service.

114649-A Rev. A xvii

Bay Networks Customer Service

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Customers can also purchase direct support from Bay Networks through a variety of service programs. As part of our PhonePlusTM program, Bay Networks Service sets the industry standard, with 24-hour, 7-days-a-week telephone support available worldwide at no extra cost. Our complete range of contract and noncontract services also includes equipment staging and integration, installation support, on-site services, and replacement parts delivery -- within approximately 4 hours.

To purchase any of the Bay Networks support programs, or if you have questions on program features, use the following numbers:

| Region | Telephone Number | Fax Number |
|--------------------------|--|--------------------|
| United States and Canada | 1-800-2LANWAN; enter Express Routing Code (ERC) 290 when prompted | (508) 670-8766 |
| | (508) 436-8880 (direct) | |
| Europe | (33) 04-92-968-300 | (33) 04-92-968-301 |
| Asia/Pacific Region | (612) 9927-8800 | (612) 9927-8811 |
| Latin America | (407) 997-1713 | (407) 997-1714 |

In addition, you can receive information on support programs from your local Bay Networks field sales office, or purchase Bay Networks support directly from your authorized partner.

xviii 114649-A Rev. A

Bay Networks Information Services

Bay Networks Information Services provide up-to-date support information as a first-line resource for network administration, expansion, and maintenance. This information is available from a variety of sources.

World Wide Web

The Bay Networks Customer Support Web Server offers a diverse library of technical documents, software agents, and other important technical information to Bay Networks customers and partners.

A special benefit for contracted customers and resellers is the ability to access the Web Server to perform Case Management. This feature enables your support staff to interact directly with the network experts in our worldwide Technical Response Centers. A registered contact with a valid Site ID can

- View a listing of support cases and determine the current status of any open case. Case history data includes severity designation, and telephone, e-mail, or other logs associated with the case.
- Customize the listing of cases according to a variety of criteria, including date, severity, status, and case ID.
- Log notes to existing open cases.
- Create new cases for rapid, efficient handling of noncritical network situations.
- Communicate directly via e-mail with the specific technical resources assigned to your case.

The Bay Networks URL is *http://www.baynetworks.com*. Customer Service is a menu item on that home page.

Customer Service FTP

Accessible via URL *ftp://support.baynetworks.com* (134.177.3.26), this site combines and organizes support files and documentation from across the Bay Networks product suite, including switching products from our CentillionTM and Xylogics[®] business units. Central management and sponsorship of this FTP site lets you quickly locate information on any of your Bay Networks products.

114649-A Rev. A xix

Support Source CD

This CD-ROM -- sent quarterly to all contracted customers -- is a complete Bay Networks Service troubleshooting knowledge database with an intelligent text search engine.

The Support Source CD contains extracts from our problem-tracking database; information from the Bay Networks Forum on CompuServe; comprehensive technical documentation, such as Customer Support Bulletins, Release Notes, software patches and fixes; and complete information on all Bay Networks Service programs.

You can run a single version on Macintosh Windows 3.1, Windows 95, Windows NT, DOS, or UNIX computing platforms. A Web links feature enables you to go directly from the CD to various Bay Networks Web pages.

CompuServe

For assistance with noncritical network support issues, Bay Networks Information Services maintain an active forum on CompuServe, a global bulletin-board system. This forum provides file services, technology conferences, and a message section to get assistance from other users.

The message section is monitored by Bay Networks engineers, who provide assistance wherever possible. Customers and resellers holding Bay Networks service contracts also have access to special libraries for advanced levels of support documentation and software. To take advantage of CompuServe's recently enhanced menu options, the Bay Networks Forum has been re-engineered to allow links to our Web sites and FTP sites.

We recommend the use of CompuServe Information Manager software to access these Bay Networks Information Services resources. To open an account and receive a local dial-up number in the United States, call CompuServe at 1-800-524-3388. Outside the United States, call 1-614-529-1349, or your nearest CompuServe office. Ask for Representative No. 591. When you are on line with your CompuServe account, you can reach us with the command **GO BAYNET**.

xx 114649-A Rev. A

InfoFACTS

InfoFACTS is the Bay Networks free 24-hour fax-on-demand service. This automated system has libraries of technical and product documents designed to help you manage and troubleshoot your Bay Networks products. The system responds to a fax from the caller or to a third party within minutes of being accessed.

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114649-A Rev. A xxi

Chapter 1 Getting Started

The BayStack ARN component tray consists of the following:

- ARN Ethernet or token ring *base module* (main component board)
- Power supply
- Fan
- Backplane for WAN adapter module card cage

You received a replacement component tray because one or more of these components failed. To install the replacement component tray:

- 1. Remove the router's PCMCIA Flash memory card (refer to "Removing the Flash Memory Card" in this chapter).
- 2. Open the ARN enclosure to access the component tray (refer to "Opening the ARN" in this chapter).
- 3. Remove all optional components from the ARN base module (refer to Chapter 2).
- 4. Install the removed components onto the new ARN base module (refer to Chapter 3).
- 5. Install the ARN enclosure on the new component tray and restart the router (refer to Chapter 4).

114649-A Rev. A 1-1

Removing the Flash Memory Card

To remove the Flash memory card from an ARN:

- 1. Press the Eject button next to the card receptacle on the back panel (Figure 1-1).
- 2. Pull the memory card out of the card receptacle.

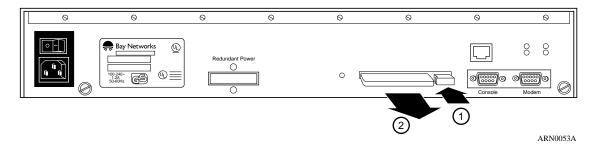


Figure 1-1. Removing an ARN Flash Memory Card

Opening the ARN

To open the ARN enclosure for access to the component tray:

- 1. Be sure that power is turned off to the 0 position.
- 2. Unplug the power cable from the wall receptacle and from the ARN (Figure 1-2).
- 3. If present, unplug the redundant power supply cable from the ARN.
- 4. Remove all console cabling from the back panel.
- 5. Remove all network cabling from the front panel.

1-2 114649-A Rev. A

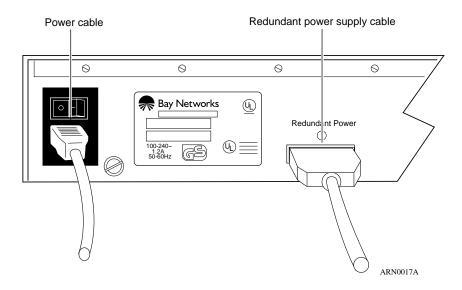


Figure 1-2. ARN Power Switch (Off) and Power Cables

6. Loosen the two captive screws that secure the enclosure to the ARN (Figure 1-3).

Be sure to loosen these screws all the way.

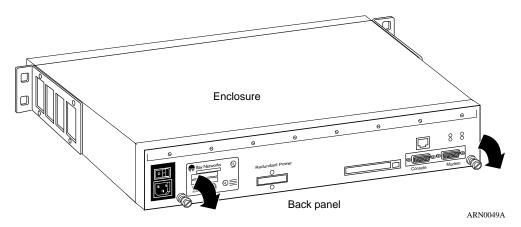


Figure 1-3. Loosening the Captive Screws

114649-A Rev. A 1-3

7. Holding the ARN front panel so that it does not move, slide the enclosure away from the component tray (Figure 1-4).

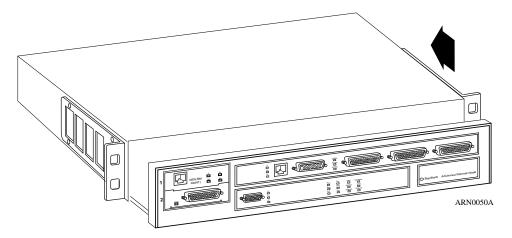


Figure 1-4. Removing the ARN Enclosure

- 8. Place the ARN component tray on a stable, static-free work surface.
- 9. Attach an antistatic wrist strap.

You receive an antistatic wrist strap with the ARN system and with the upgrade module shipment. Refer to the instructions in the wrist strap bag.

The wrist strap directs the discharge of static electricity from your body to the router chassis, thereby avoiding discharge to sensitive electronic components.

- 10. If the ARN includes any of the following optional components, proceed with the applicable sections in Chapter 2:
 - Expansion module (Ethernet, Token Ring, Tri-Serial, Ethernet/Tri-Serial, Token Ring/Tri-Serial)
 - Adapter module (Serial, DSU/CSU, V.34 Modem, ISDN BRI)
 - Ethernet Data Collection Module (DCM)
 - V.34 Console Modem module
 - Memory module
 - Flash PCMCIA card
- 11. If the ARN has no optional components, proceed to **Chapter 4**.

1-4 114649-A Rev. A

Chapter 2 Removing ARN Components

Complete the steps in this chapter to remove any of the following optional modules from an ARN component tray:

- Memory module (SIMM)
- Expansion module (Ethernet, Token Ring, Tri-Serial, Ethernet/Tri-Serial, or Token Ring/Tri-Serial)



Note: When removing an Ethernet or Ethernet/Tri-Serial expansion module that includes a DCM, keep the DCM installed on the expansion module.

- Adapter module (Serial, DSU/CSU, V.34 Modem, ISDN BRI)
- DCM on an Ethernet base module
- V.34 Console Modem module

Removing an Installed Memory Module

To remove the existing SIMM from the ARN base module:

1. Locate the SIMM connector on the ARN base module (Figure 2-1).

Note the spring latch at each end of the SIMM connector.

114649-A Rev. A 2-1

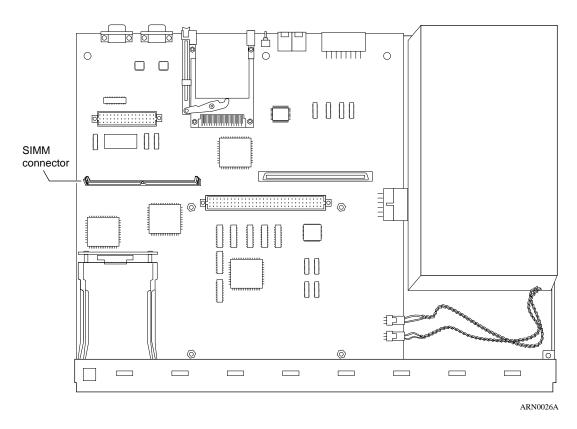


Figure 2-1. Location of the SIMM Connector on the Base Module

2. Carefully press outward on the two spring latches until the SIMM ejects from the locking studs (Figure 2-2).

Apply simultaneous pressure to both spring latches.

2-2 114649-A Rev. A

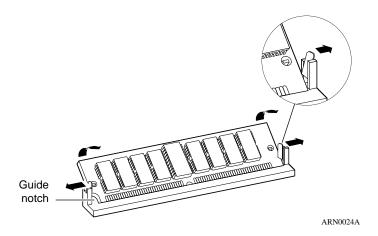


Figure 2-2. Ejecting the Installed SIMM

3. Rotate the SIMM upward and lift it out of its socket (Figure 2-3).

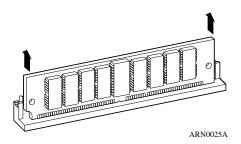


Figure 2-3. Removing the SIMM

- 4. Place the removed SIMM in an antistatic bag, or set it on an antistatic mat.
- 5. Proceed to the next section if applicable; or to Chapter 3 to install the removed components onto the replacement ARN base module.

114649-A Rev. A 2-3

Removing an Installed Expansion Module

To remove an expansion module from the ARN:

1. Remove the five screws and washers that secure the expansion module to the base module (Figure 2-4).

Set aside the five screws to use when reinstalling the module.

2. Disconnect the power cable from its connector on the expansion module (Figure 2-4).

Pull up on the white tabs in the connector to loosen the cable.

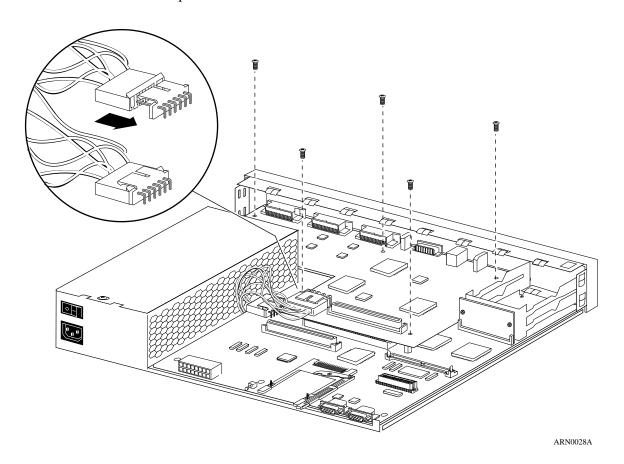


Figure 2-4. Removing the Expansion Module Power Cable and Screws

2-4 114649-A Rev. A

3. Grasping the expansion module at either end of its base module connector, pull straight up to detach the connector from the base module socket.

Use some force at first, but stop pulling once the two connectors are free.

- 4. With the interface connectors still resting inside the chassis expansion slot, gently pull up on the module until it rests at an angle appromixately 90-degrees to the base module.
- 5. Keeping the expansion module perpendicular to the base module, slide the interface connectors horizontally toward the rear of the chassis until the module clears the top of the tray assembly and you can remove it (Figure 2-5).

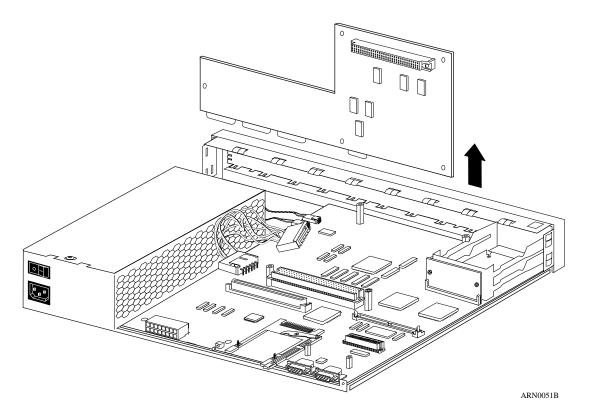


Figure 2-5. Removing the Expansion Module

6. Place the removed expansion module in an antistatic bag.

114649-A Rev. A 2-5

7. Proceed to the next section if applicable; or to Chapter 3 to install the removed expansion module onto the replacement ARN base module.

Removing an Installed Adapter Module

To remove an adapter module from the ARN:

1. Remove the screw that secures the module to the front panel adapter module slot (Figure 2-6).

Set aside the screw to use when reinstalling the module.

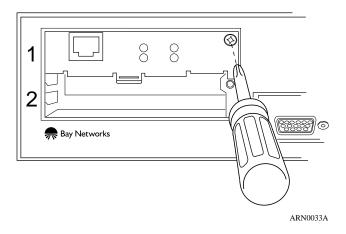


Figure 2-6. Removing the Adapter Module Screw

- 2. Insert the screwdriver into the slot on the module bracket's metal tab, or grasp the tab with your fingers.
- 3. Pull the adapter module toward you to detach it from the base module connector (inside the ARN chassis).

Use some force at first, but stop pulling immediately once the two connectors are free.

- 4. Slide the module all the way out of the card cage.
- 5. Place the removed adapter module in an antistatic bag.
- 6. Proceed to the next section if applicable; or to <u>Chapter 3</u> to install the removed components onto the replacement ARN base module.

2-6 114649-A Rev. A

Removing an Ethernet DCM from the ARN Base Module

To remove an installed DCM from an ARN Ethernet base module:



Note: When removing an Ethernet or Ethernet/Tri-Serial expansion module that includes a DCM, keep the DCM installed on the expansion module. You do not need to remove the DCM.

1. At one of the three plastic standoff mounts, press in on the clip that secures the DCM (Figure 2-7) and simultaneously pull up to release the module from the mount.

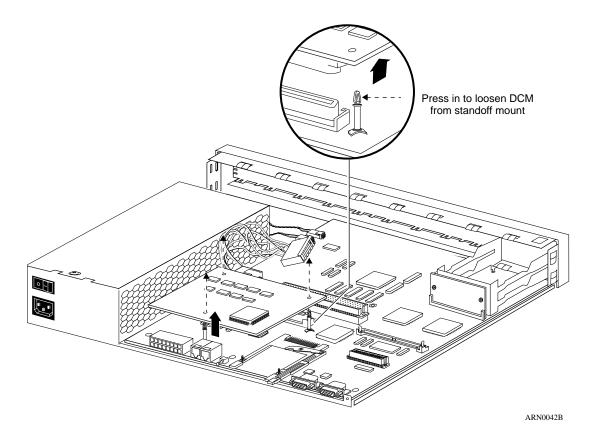


Figure 2-7. Removing the DCM from an Ethernet Base Module

2. Repeat Step 1 for the other two mounts.

114649-A Rev. A 2-7

3. With the DCM free from all three standoff mounts, grasp either end of the DCM connector and pull straight up to detach the DCM from the base module socket (refer to Figure 2-7).

Use some force at first, but stop pulling once the two connectors are free.

4. Proceed to the next section if applicable; or to Chapter 3 to install the removed components onto the replacement ARN base module.

Removing an Installed V.34 Console Modem Module

To remove an existing V.34 Console Modem module from the ARN base module:

1. Locate the installed module and remove the four screws that secure it to the base module (Figure 2-8).

Set aside the four screws for reinstalling the module.

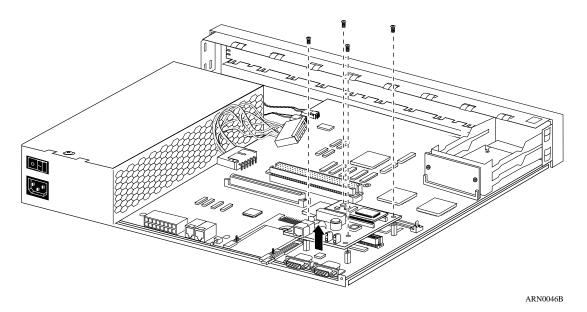


Figure 2-8. Removing the Screws from the V.34 Console Modem Module

- 2. Grasping the edges of the module, pull straight up and lift the module out of the base module connector socket.
- 3. Place the module in an antistatic bag, or set it on an antistatic mat.

2-8 114649-A Rev. A

4. Using a flathead screwdriver, remove the two standoff screw mounts from either side of the base module's V.34 console modem connector (Figure 2-9).

Set the two standoff screw mounts aside for use in the new component tray.

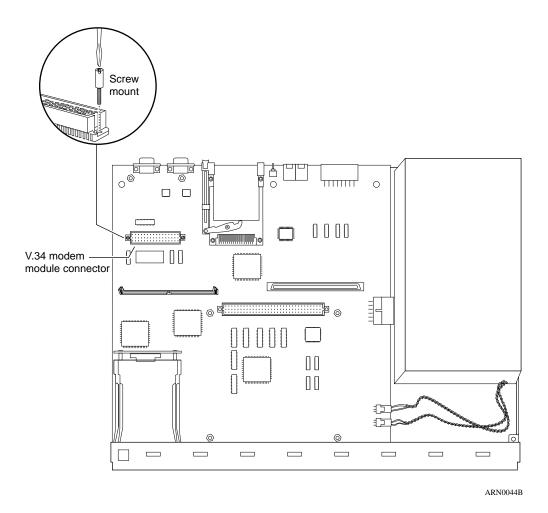


Figure 2-9. Removing the Two Screw Mounts

5. Proceed to <u>Chapter 3</u> to install the removed components onto the replacement ARN base module.

114649-A Rev. A 2-9

Chapter 3 Replacing ARN Components

After removing all optional components from the old ARN base module, complete the steps in this chapter to reinstall any of the following optional modules onto the replacement ARN base module:

- Memory module
- Expansion module (Ethernet, Token Ring, Tri-Serial, Ethernet/Tri-Serial, Token Ring/Tri-Serial)
- Ethernet DCM
- V.34 Console Modem module

Installing a Memory Module

To reinstall a DRAM SIMM:

1. Holding the SIMM by its top corners (away from the connector edges), orient the SIMM so that the notch is at the bottom, facing the edge of the base module and tray assembly (Figure 3-1).

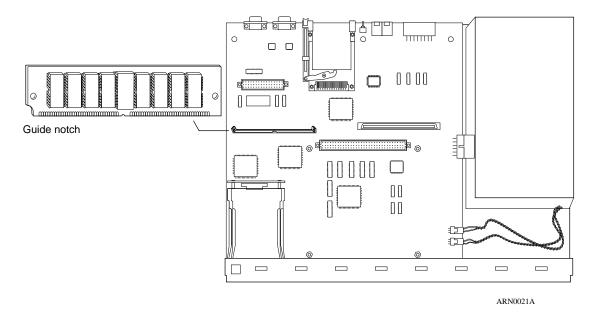


Figure 3-1. Positioning the SIMM

2. Place the SIMM into the base module connector socket and press in to seat the SIMM firmly in the socket (Figure 3-2).



Caution: The SIMM is keyed with the guide notch to prevent incorrect insertion. Do not force the SIMM if it does not go easily into the socket.

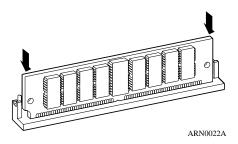


Figure 3-2. Inserting the SIMM

3-2 114649-A Rev. A

3. Tilt the SIMM down into its locked position (Figure 3-3).

You should hear a "click" as the spring latches engage the ends of the SIMM.



Caution: It is normal to feel a slight resistance as the SIMM comes to its locked position, but be careful not to use too much force. It is easy to damage the SIMM socket by forcing it into the locked position.

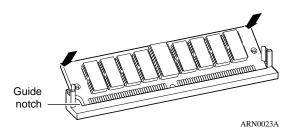


Figure 3-3. SIMM in Locked Position

4. Proceed to the next section if applicable; or to **Chapter 4** to complete the installation.

Installing an Expansion Module

To reinstall an expansion module:

1. Locate the expansion module connector and five standoff screw mounts on the ARN base module (Figure 3-4).

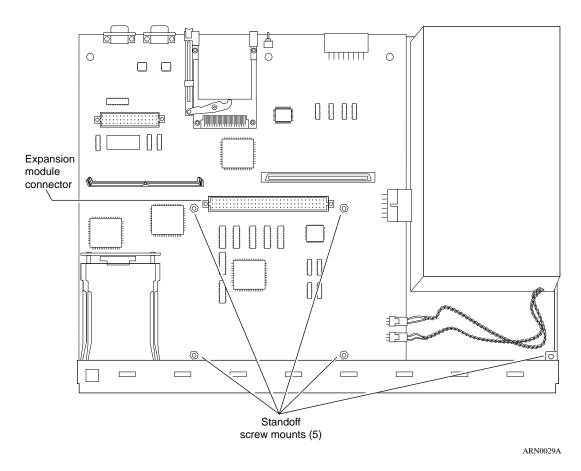


Figure 3-4. Location of the Expansion Module Connector on the Base Module

- 2. Insert the module's interface connector panel into the front panel expansion slot.
 - a. To clear the mounting screw standoff, hold the expansion module perpendicular to the base module.
 - b. Slide the interface connectors into the slot at a 90-degree angle (Figure 3-5).
 - c. Rotate the connectors into place (Figure 3-6).

3-4 114649-A Rev. A

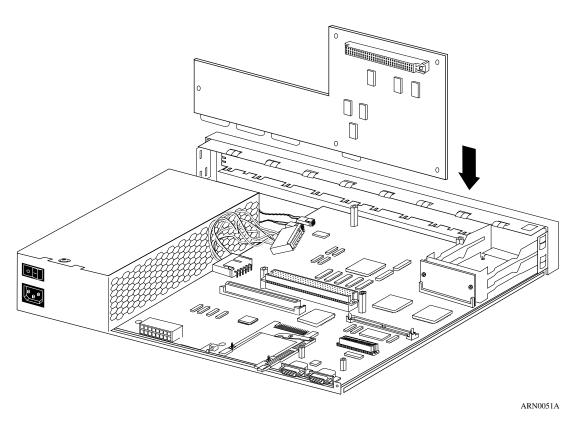


Figure 3-5. Inserting the Expansion Module

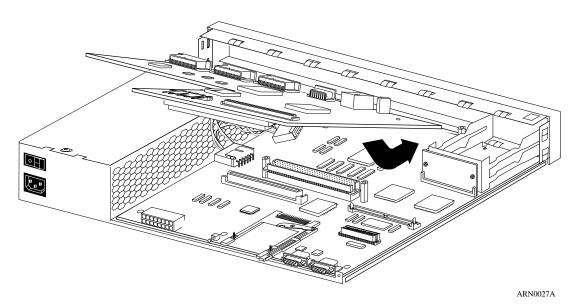


Figure 3-6. Aligning the Expansion Module Interface Connectors

- 3. Press the module forward into the expansion slot until the pins in the expansion module's base module connector aligns with the socket on the base module.
- 4. Press down on the corners of the module at either end of the base module connector until the module slides securely into place.
- 5. Insert the five screws and washers that came with expansion module into the base module mounting standoffs (Figure 3-7).
- 6. Tighten the screws using a Phillips screwdriver.
- 7. With the clip side up, insert the expansion module power cable into the power connector on the expansion module (Figure 3-7).
 - Be sure the cable locks into place and is completely secured.
- 8. Proceed to the next section if applicable; or to <u>Chapter 4</u> to complete the installation.

3-6 114649-A Rev. A

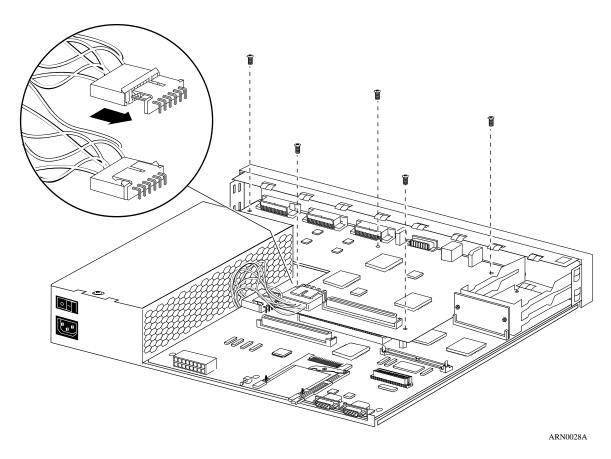


Figure 3-7. Attaching the Power Cable and Securing the Expansion Module

Installing the DCM

To install the DCM on the ARN base module:

1. Locate the DCM connector and three holes for standoff mounts on the ARN base module (Figure 3-8).

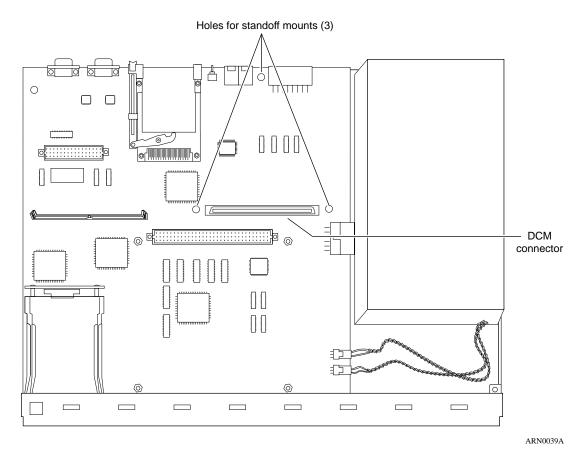


Figure 3-8. Location of the DCM Connector and Holes for Standoff Mounts on the Ethernet Base Module

2. With the flanged end facing down (Figure 3-9), insert standoff mounts into the three holes on the base module.

The standoff mounts are part of the component tray upgrade kit.



Figure 3-9. DCM Standoff Mount

3-8 114649-A Rev. A

3. Press down on each standoff mount until it is securely attached to the base module.

You may hear a snap or clicking sound as each standoff locks into place. You should not be able to pull the standoff mount away from the base module.

4. Hold the DCM with the connector facing down (Figure 3-10).

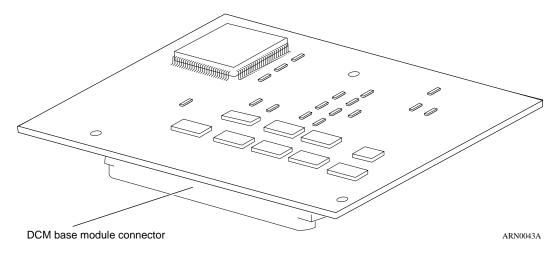


Figure 3-10. Ethernet DCM

- 5. Align the DCM connector with the connector socket on the base module (Figure 3-11).
- 6. Align the three holes on the DCM with the three standoff mounts on the base module (Figure 3-11).

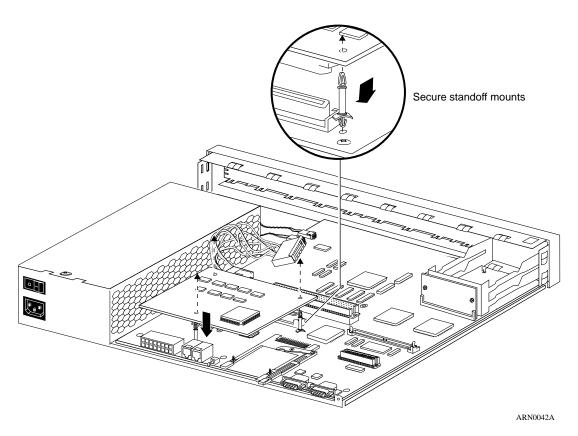


Figure 3-11. Installing the DCM on the Base Module

- 7. Press down on the corners of the DCM connector until it slides securely into place in the base module socket.
- 8. Press down on the DCM until it is secured in all three standoff mounts.

 You should not be able to pull the DCM away from the standoff mounts.
- 9. Proceed to the next section if applicable; or to Chapter 4 to complete the installation.

3-10 114649-A Rev. A

Installing a V.34 Console Modem Module

To reinstall a V.34 Console Modem module:

1. Remove the two screws that secure the filler panel that covers the V.34 Console Modem module back panel slot (Figure 3-12).

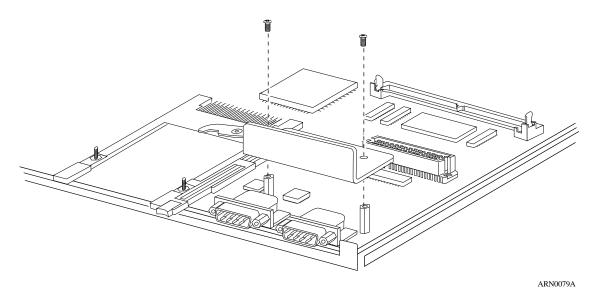


Figure 3-12. Removing the V.34 Console Modem Module Filler Panel

2. Install the two mounting screw standoffs that you removed from the old component tray into the holes at either side of the base module connector (Figure 3-13).

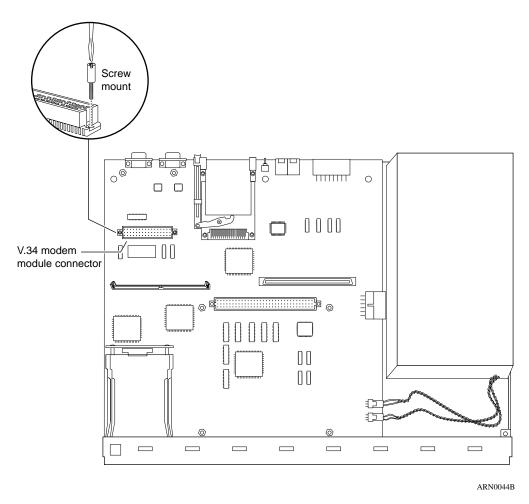


Figure 3-13. Installing Standoff Screw Mounts for the V.34 Console Modem Module

3. Hold the module by its edges, with the base module connector facing down (Figure 3-14).

3-12 114649-A Rev. A

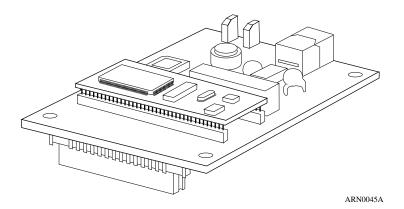


Figure 3-14. Positioning the Module

- 4. Place the console modem module into the base module connector socket and press down to seat the module firmly in the socket.
- 5. Secure the module using four screws (Figure 3-15).

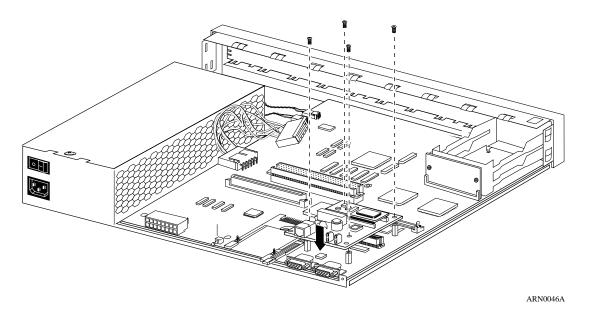


Figure 3-15. Securing the Module

6. Proceed to Chapter 4 to complete the installation.

Chapter 4 Installing the Component Tray

Complete the steps in this chapter to

- Install the ARN enclosure on the new component tray.
- Reinstall any WAN Adapter modules (Serial, DSU/CSU, V.34 Console Modem, ISDN BRI) in the front panel slots.
- Reinstall the PCMCIA flash card.
- Connect network cabling.
- Proceed to software configuration tasks.

Closing the ARN

To install the ARN enclosure on the new ARN component tray:

- 1. Remove the antistatic wrist strap.
- 2. Align the enclosure around the back panel of the component tray.
- 3. Slide the enclosure in until it meets the front panel (Figure 4-1).

If you meet resistance, lift up slightly on the enclosure, and center the component tray between the enclosure edges.

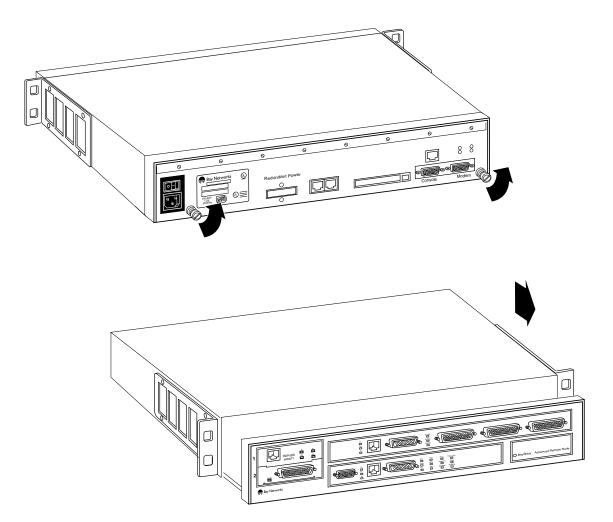


Figure 4-1. Attaching the ARN Cover

4. Secure the two captive screws that hold the cover to the component tray.

4-2 114649-A Rev. A

Installing WAN Adapter Modules

To install an adapter module:

1. Wearing an antistatic wrist strap, hold the adapter module with the components facing up (Figure 4-2).

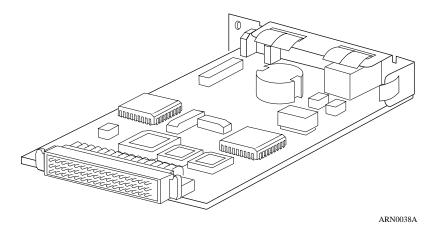


Figure 4-2. Adapter Module Ready to Be Installed

2. Insert the end of the module with the base module connector into the front panel card cage, engaging the guides along the side of the cage to secure the module edges.

Figure 4-3 shows the installation from inside the ARN.

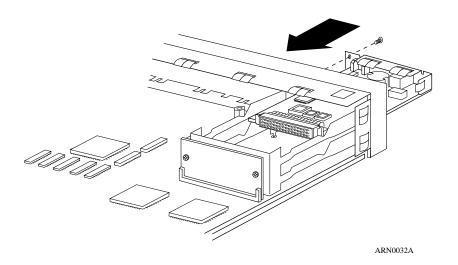


Figure 4-3. Aligning the Adapter Module to the Base Module (View Inside the ARN Chassis)

- 3. Push the front of the module in until its connector pins align with the base module connector socket inside the chassis.
- 4. Using a Phillips screwdriver, insert and secure the screw (Figure 4-4).

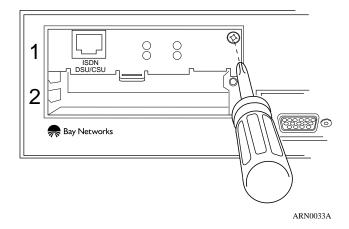


Figure 4-4. Securing the Adapter Module to the Front Panel

5. Remove the antistatic wrist strap.

4-4 114649-A Rev. A

Installing the Flash Memory Card

Install the Flash memory card:

- 1. Position the card with the label facing up and the INSERT arrow pointing toward the card receptacle.
- 2. Insert the card into the receptacle (Figure 4-5).
- 3. Gently push the card until it fits snugly into place.

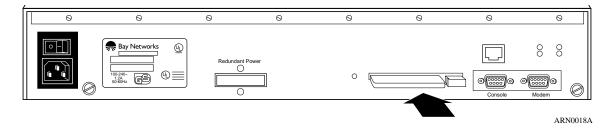


Figure 4-5. Inserting the Flash Memory Card in the ARN Receptacle

Connecting Cables

To reconnect the ARN cabling:

1. Attach any network cables that you disconnected in **Chapter 1**.

Refer to the *Cable Guide for Routers and BNX Platforms* for information about the cables available from Bay Networks.

Figures 4-6 through 4-12 show the network cable connections.

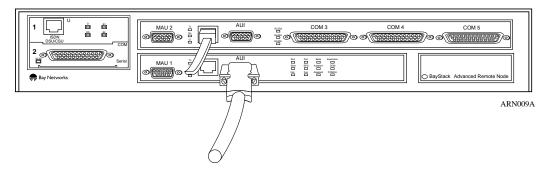


Figure 4-6. Ethernet Cable Connection

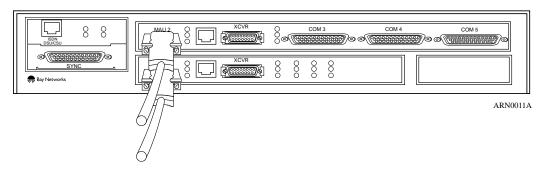


Figure 4-7. Token Ring Cable Connection

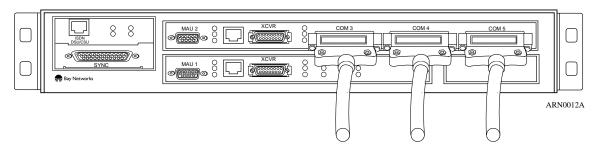


Figure 4-8. Serial Expansion Module Cable Connection

4-6 114649-A Rev. A

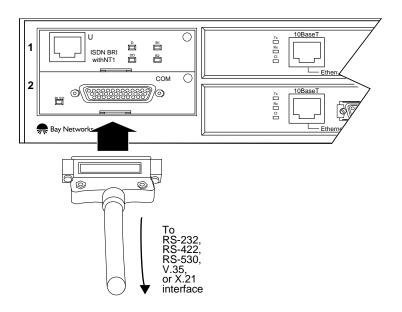


Figure 4-9. Serial Adapter Module Cable Connection

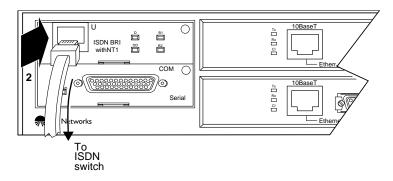


Figure 4-10. ISDN (U or S/T Interface) Module Cable Connection

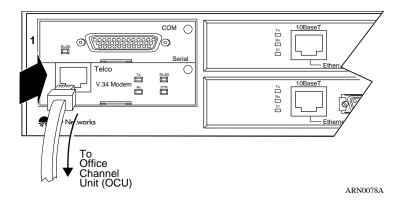


Figure 4-11. CSU/DSU Module Cable Connection

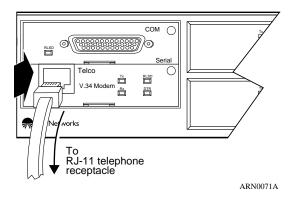


Figure 4-12. V.34 Modem Adapter Module Cable Connection

2. Attach the applicable console cables that you disconnected in Chapter 1.

Figures 4-13 through 4-15 show the console cable connections.

4-8 114649-A Rev. A

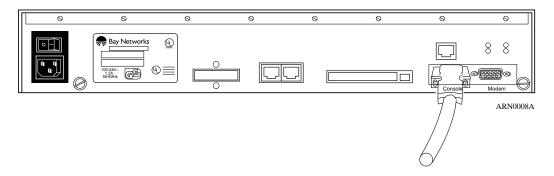


Figure 4-13. Terminal Console Cable Connection

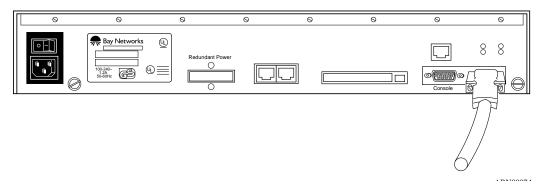


Figure 4-14. Modem Console Cable Connection

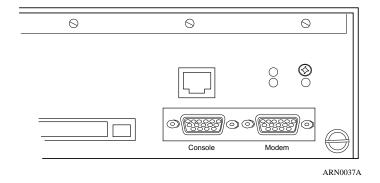


Figure 4-15. V.34 Console Modem Cable Connection

3. Plug in the power cord and, if applicable, the redundant power supply cable (Figure 4-16).

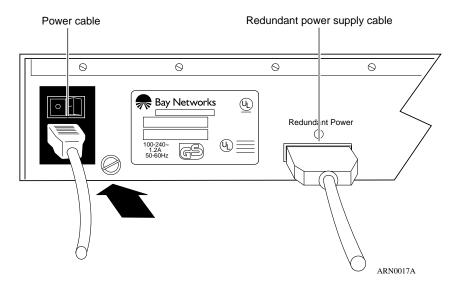


Figure 4-16. Power Cables

Your Next Step

You do not need to reconfigure the ARN interfaces unless you installed components in the new ARN tray that were not in the one that you replaced.

Restart the ARN as described in the *Installing and Operating BayStack ARN Routers*, and verify that the LED status indicators function as summarized in the next section.

Ensuring a Successful Installation

After reconnecting the ARN to the network, you can ensure a successful upgrade by checking the diagnostic LEDs on the front panel of the base module (Figure 4-17).

4-10 114649-A Rev. A

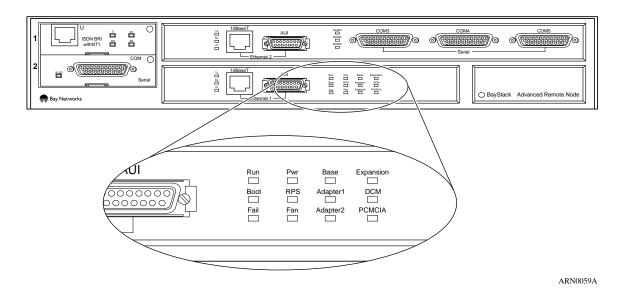


Figure 4-17. ARN Base Module Diagnostic LEDs

When you power on the ARN, the following sequence of front panel LED activity should occur:

- All base module LEDs light momentarily; this verifies that the LEDs are operational.
- The Run, Boot, and Fail LEDs count through a short, initial startup sequence.
- The Pwr (power) LED lights and remains on.
- The Run LED begins flashing and continues to flash until the ARN completes all diagnostic tests.
- As the diagnostic procedure tests each module, the LED representing that
 module flashes slowly. If the module passes its diagnostic test, the LED
 remains on. If the module fails its diagnostic test, the Fail LED remains on
 and the module LED flashes rapidly.

• After completing the diagnostic testing procedure, the boot process begins. The Run and Boot LEDs indicate the boot status as shown in Table 4-1.

Table 4-1. Boot Status LEDs

| Boot Status | Run LED | Boot LED |
|---------------------------------|----------|----------|
| Local Boot | Off | On |
| Netboot (attempting) | Off | Flashing |
| Netboot (downloading) | Flashing | On |
| Interrupted (using ARN monitor) | Flashing | Flashing |

• After the boot process completes, the Run LED lights and the Boot LED turns off, indicating that the ARN is operational.

If the LEDs on the ARN light in this sequence, your upgrade is successful. Contact the network administrator to verify that the ARN is now connected to the network.

If the LEDs do not light in this sequence, the network administrator can refer to *Configuring Remote Access* to help troubleshoot the problem.



Note: If the ARN does not contain an expansion module, an adapter module, a redundant power supply, a DCM, or a Flash card, the LEDs associated with these components remain off.

If you need additional assistance, contact your local Bay Networks Technical Response Center.

4-12 114649-A Rev. A